

FIG. 1a

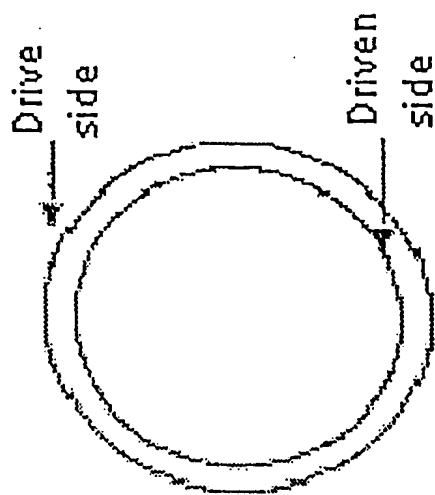


FIG. 1b

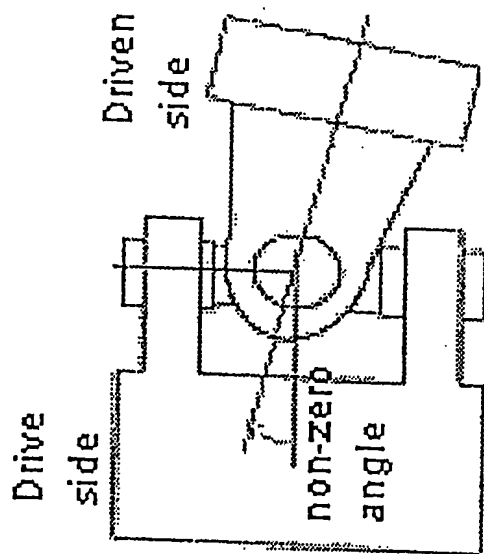


FIG. 2a

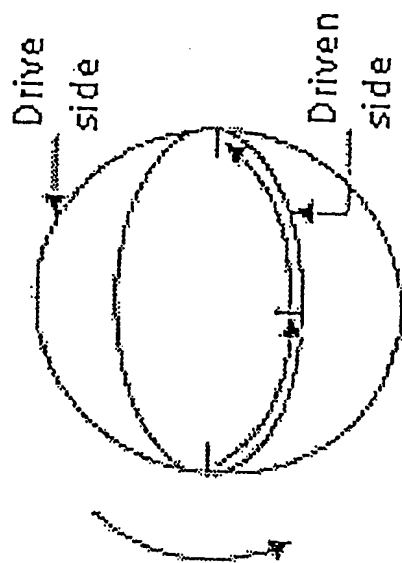


FIG. 2b

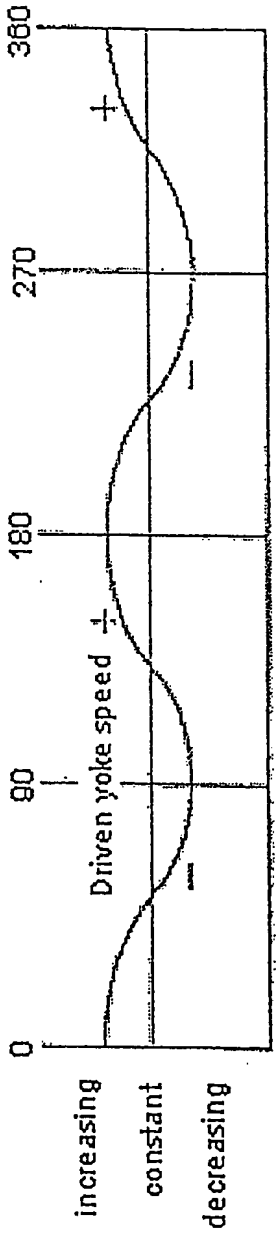
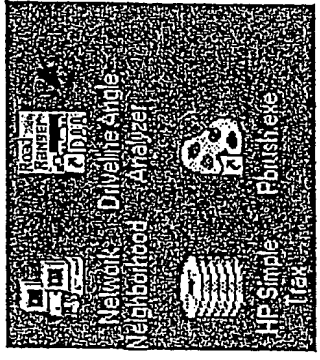


FIG. 3



-40

FIG. 4

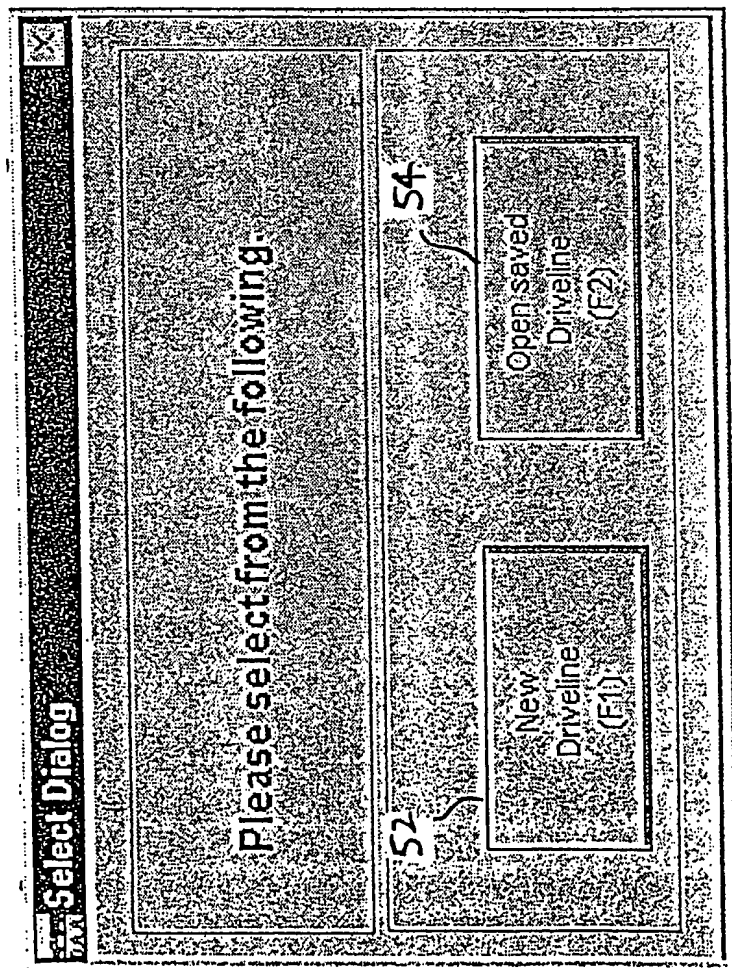


FIG. 5

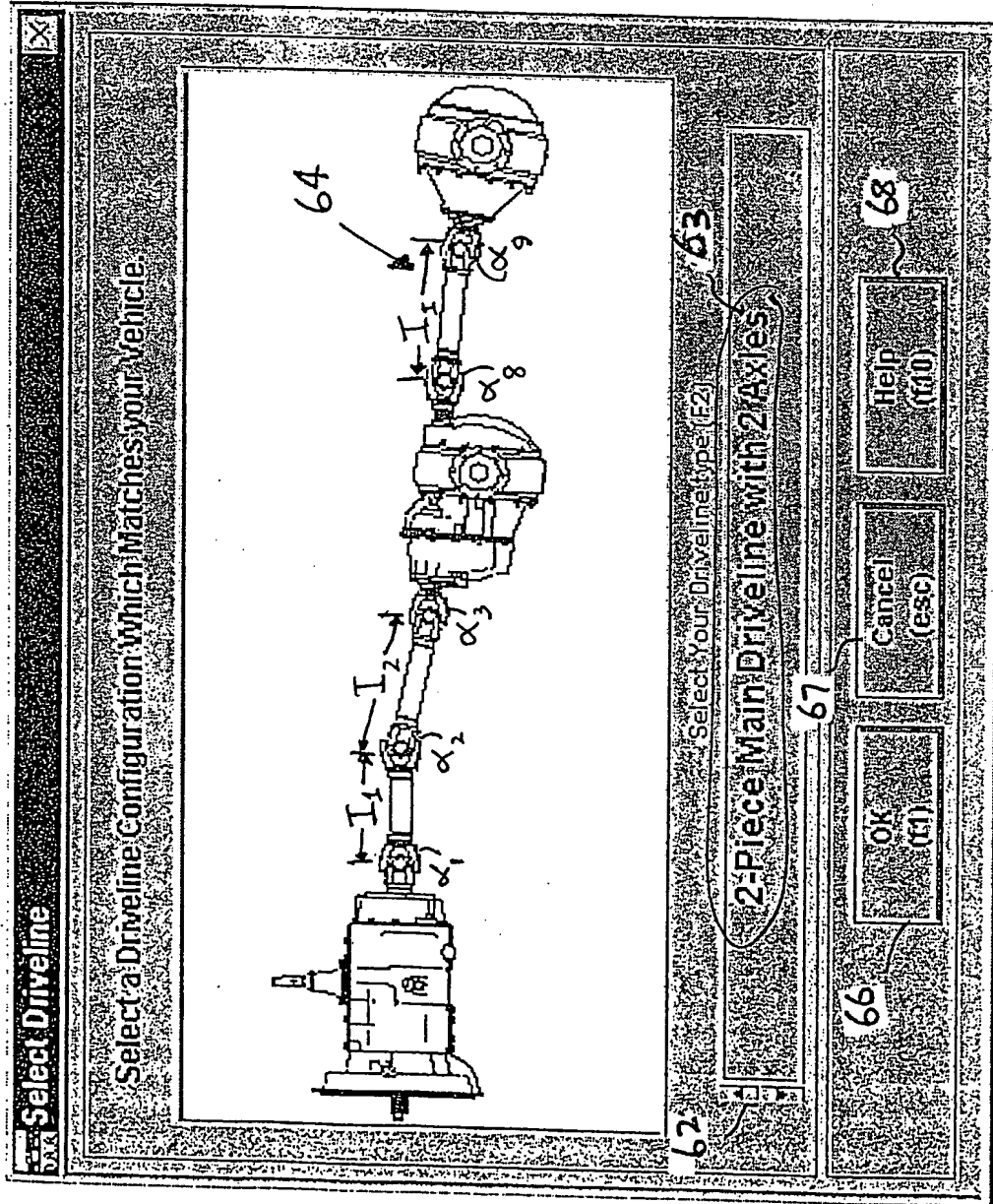


FIG. 6

70 →

71
72
73
74
75
76

78

33

FIG. 8

89a. 89b

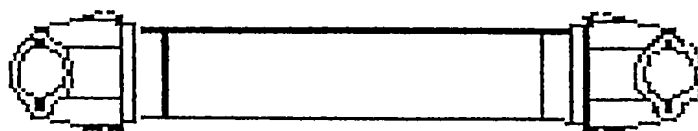


FIG. 9a

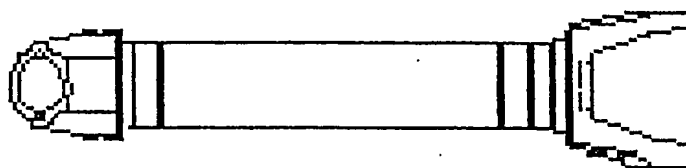


FIG. 9b

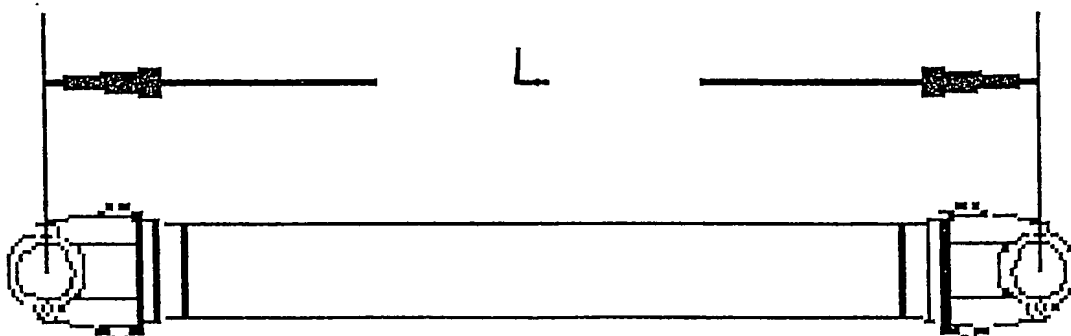


FIG. 10

09736232.08101
T0ET80 2E29E760

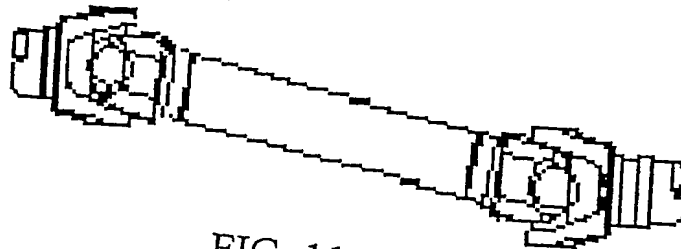


FIG. 11a

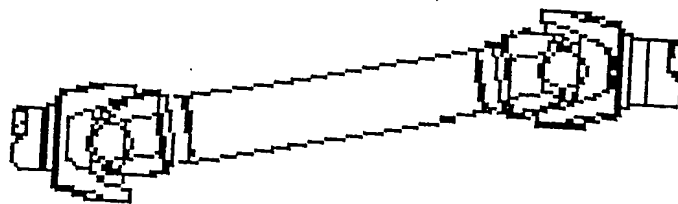


FIG. 11b

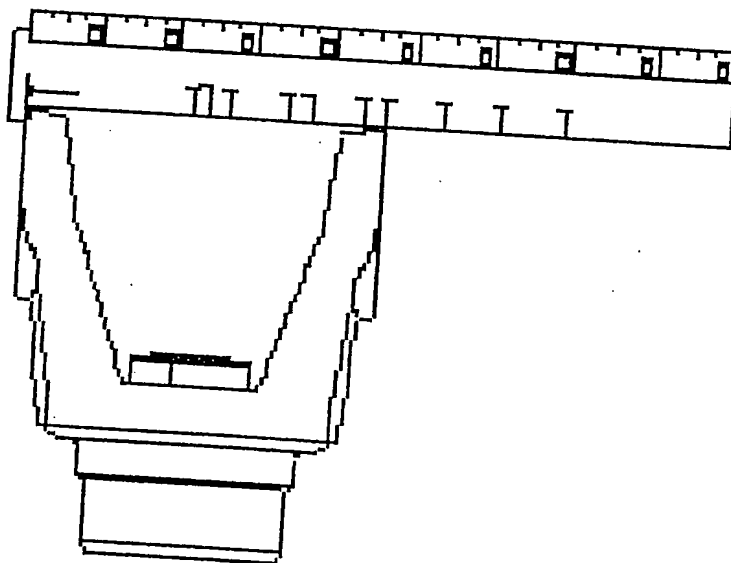


FIG. 12

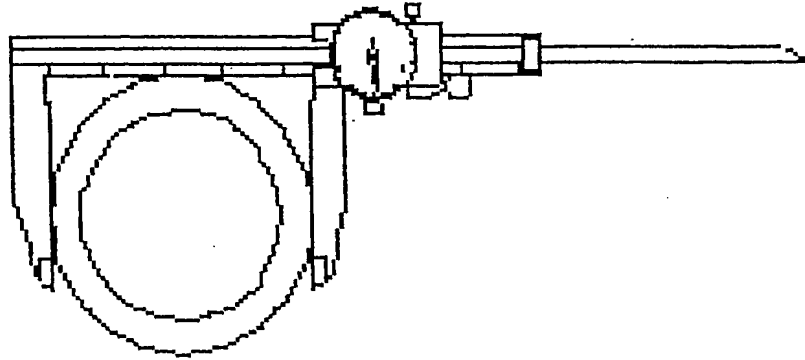


FIG. 13

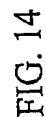


FIG. 14

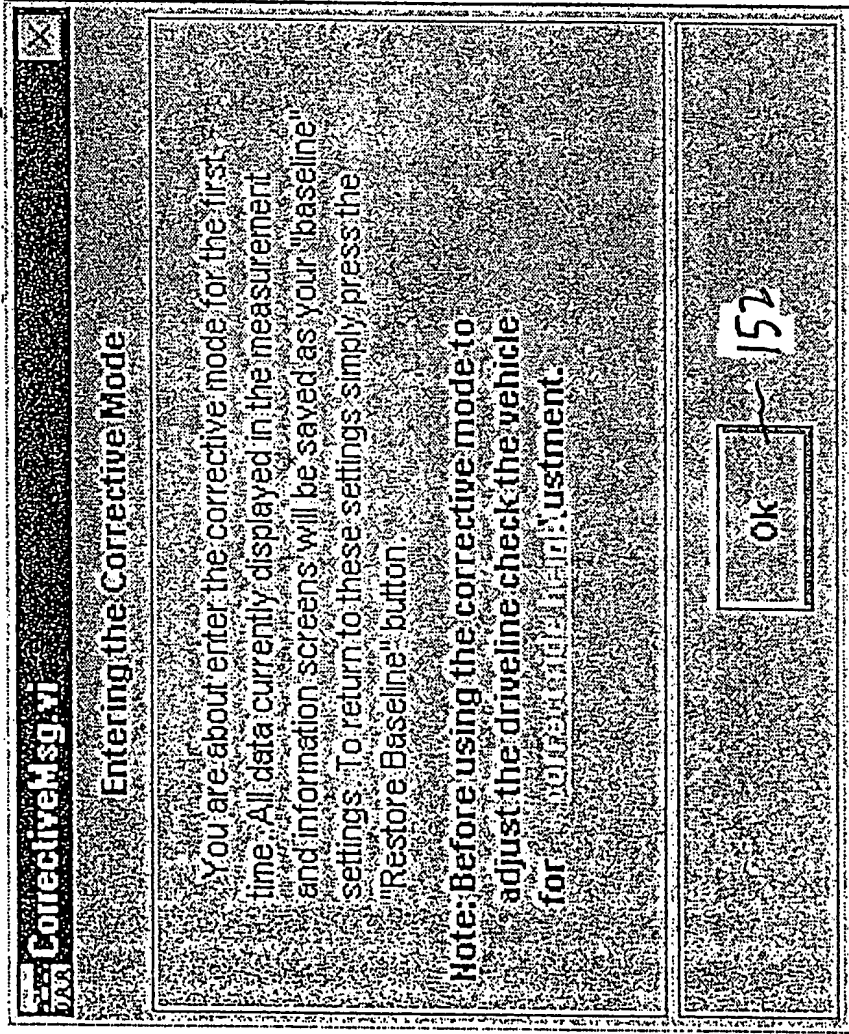
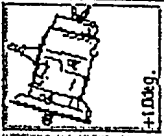


FIG. 15

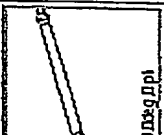
DriveLine Angle Analyzer

File Help

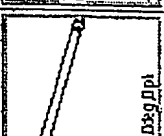
2-Piece Main DriveLine with 2 Axes:




+10deg




-3.0deg Dpl



-3.0deg



+2.3deg Dpl



+7.0deg

Trans: #1 Prop Shaft

Prop Shaft

D Head

Prop Shaft

R Head

Max DriveLine RPM: 2100.00 RPM

DriveLine Inertia: 7.125 lb-in

Cost Inertia: 7.250 lb-in

Cost Inertia: 7.250 lb-in

Trans to D head: 235.711 rad/sec

D head to R head: 178.665 rad/sec

Overall: 248.148 rad/sec

Good

Angles

Frame Angle: 0.00

Transmission: 1.00

#1 Prop Shaft: -3.00

#2 Prop Shaft: 3.00

D Head Axle: -3.00

Interaxle Shaft: 2.227

R Head Axle: 7.00

Phase

Phase Angle: 0 deg

Phase Angle: 0 deg

Phase Angle: 0 deg

Phase Angle: 0 deg

Length (in)

Length: 23.00

Length: 23.00

Length: 23.00

Length: 23.00

Air-Bad Height

Front Ride Height: 0.00

Back Ride Height: 0.00

161

162

166

Max Engine RPM in Top Gear: 2100

Top Gear Ratio of Transmission: 1.00

Comments:

The user would then enter all the measurements enter on the worksheet into this screen.

Next DriveLine P2

Open

Save

Print Worksheet

Information

Measurements

Corrective Model

Restore Baseline

Print Results

Directions

Help

Exit DM

FIG. 16



FIG. 17

180

181

183


Print Results

ROADKING
ANALYZER

Driveline Angle Analyzer


2-Piece Main Driveline with 2 Axles (Corrected)

Trans




+10deg

#1 Prop Shaft




-3.0deg

#2 Prop Shaft



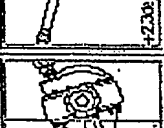
+3.0deg

D Head




-3.0deg

R3 Prop Shaft



+23.9deg

R Head



+1.0deg

Good

Vehicle Information:

Truck Unit #	After
Fleet Name	Hilling outworks test
Fleet Account #	De
Truck Manufacturer	Isac
Truck Model	100131
Unit #	1001
Trans Model #	1001
Trans Serial #	1001
Cited Manufacturer	De
Cited Size	1010
# of Cited Springs	110
Cited Parts	100
Engine Make/Model	1000
Wheel Base	1000
Skat Axle Tire Size	1000
Drive Axle Tire Size	1000
Main Drive Line Series	Spider 1610
Main Drive Line Series	Spider 1620
Make Manufacturer	Dana/Spider (Domestic/Export)
Axe Model #	1001
D-Head Serial #	1001
R-Head Serial #	1001
Vehicle Weight	1000
Vehicle Build Date	1000
Tuned By	1000

Driveline Dimensions:

Angle	Phase	Length (in)
Frame Angle: 0.00		
Trans angle: 1.00		
#1 Prop Shaft: -3.00	0 deg	24.00
#2 Prop Shaft: 3.00	0 deg	24.00
D Head Angle: -3.00	0 deg	14.87
Inertia Angle: 2.27		
R Head Angle: 7.00		

Driveline Results:

Unit Driveline RPM	RPM	Torque (ft-lb)	Overall
Drive Inertia	2100.00	27.25	27.25
Coast Inertia	25.04	25.04	25.04
Trans to D-Head	235.71	235.71	235.71
D-Head to R-Head	78.88	78.88	78.88
Overall Results	248.48	248.48	248.48

Comment:

The user would then enter all the measurements enter on the work sheet.

191

Print Results:

192

193

194

FIG. 19

Worksheet2.vi

DriveLine Angle Analyzer

Before measuring Angles:

1. Check front and rear wheels
2. Place them in NEUTRAL
3. Release parking brake

Measurement Directions:

To Measure Driveline Length:
All drive shaft lengths are measured from the yoke end cap centers.

To Measure Component Angles:
Positive angles (+) - The end closest to the front of the vehicle is higher than the end furthest from the front of the vehicle.

To check Driveline Phasing:
Driveline Phase is 0 degrees when the yoke end caps are aligned.

Driveline Phase is 90 degrees when the yoke end caps are not aligned.

E1 Prop shaft

Angle deg

Length in

Phase (clicks) 0 deg 90 deg

E2 Prop shaft

Angle deg

Length in

Phase (clicks) 0 deg 90 deg

Auxiliary

Angle deg

Trans

Angle deg

R-Hood

Angle deg

D-Hood

Angle deg

Track Unit #	Trans Serial #	Steer Axle Tire Size	Asle Manufacturer
Fleet Name	Clutch Manufacturer	Drive Axle Tire Size	D-Hood Serial #
Fleet Account #	Clutch Size	Main Driveline Series	R-Hood Serial #
Track Manufacturer	# of Clutch Springs	Interaxle Driveline Series	Vehicle Mileage
Track Model	Clutch Description	Auxiliary Trans Model #	Vehicle Build Date
VIN #	Engine Type	Auxiliary Trans Serial #	Tested by
Trans Model #	Wheel Base	<div style="display: flex; justify-content: space-around;"> <div>Print</div> <div>Cancel</div> <div>Esc</div> </div>	

FIG. 20

Worksheet2.vi

Rockwell

DriveLine Angle Analyzer

6X6

Trans

Angle deg

E1 Prop shaft

Angle deg

Length in

Phase Angle (click on)

0 deg 90 deg

E2 Prop shaft

Angle deg

Length in

Phase Angle (click on)

0 deg 90 deg

E3 Prop shaft

Angle deg

Length in

Phase Angle (click on)

0 deg 90 deg

E4 Prop shaft

Angle deg

Length in

Phase Angle (click on)

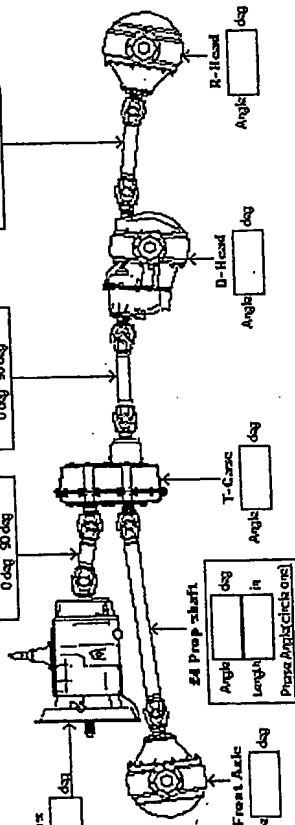
0 deg 90 deg

D-Head

Angle deg

R-Head

Angle deg

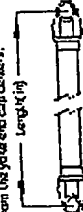


Before measuring Angles


1. Check front and rear wheels
2. Place vehicle in NEUTRAL
3. Release parking brake

Measurement Directions

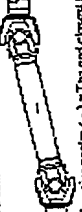
To Measure Driveline Length:
All drive shaft lengths are measured from the yoke end caps centers.



To Measure Component Angles:
Positive angles (+) = The end closest to the front of the vehicle is higher than the end furthest from the front of the vehicle.

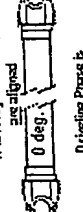


Front of Vehicle

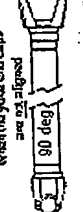


Rear of Vehicle

To check Driveline Phasing:
Driveline Phase is Zero degrees when the yoke and caps are aligned



Driveline Phase is 90 degrees when the yoke and caps are not aligned



Print

Cancel

Esc

Tested by

FIG. 21